Author Index of Volume 34

Aigner, M., 515 Alós, M.A., 529, 543 Augustin, W., 79

Beld, L.v.d., 469 Blass, E., 269 Blumberg, W., 339 Bohnet, M., 79, 151 Bonny, L., 391, 401 Brunn, P.-O., 479 Bulutcu, N., 415 Burschka, A., 173

Cabanes, A.L., 459 Chen, X.D., 379 Chen, J.J.J., 379 Cui, B., 385

Das, R.P., 495 Daun, M., 121 Dietlen, S., 141 Dolejš, V., 1 Drige, T., 317

Ebert, F., 235 Eickenbusch, H., 479

Forbert, R., 49 Friedel, L., 71

Gaddis, E., 115 Gängler, T., 9 Gelbe, H., 289 Giannakopoulos, D., 421 Gmachowski, L., 41 Godínez, C., 459 Górak, A., 97 Grän-Heedfeld, J., 121 Gürbüz-Beker, Ü., 415

Haario, H., 503 Häberl, M., 269 Heidenreich, S., 235 Hernández, H., 529, 543 Heschel, I., 351 Hesheng, L., 35 Hieronymus, H., 141 Hofbauer, H., 515, 521

Jahr, M., 289 Junhong, L., 35

Kakaras, E., 421 Karbstein, H., 205 Kenig, E., 97 Kind, M., 323 Kleinbach, E., 329 Knebel, T., 219 Köneke, D., 105 Krämer, H., 245 Kranz, N.-J., 71 Kraslawski, A., 433 Kruse, M., 185 Kuczynski, M., 367 Kukiełka, W., 455 Kuncová, G., 25

Lachowska, M., 455 Lehner, M., 283 Lin, Y., 35 Link, K., 213 Liu, J., 35, 385 Liu, H., 35, 385 Lockemann, C.A., 487, 561

Machač, I., 1

Martin, H., 439 Marzo, T., 351 Mayinger, F., 283 Mersmann, A., 279 Mewes, D., 255 Midoux, N., 503 Molerus, O., 173 Molga, E., 529, 543 Morawe, B., 299 Muñoz de Soto-Soliz, S., 561

Nieken, U., 323 Nyström, L., 433

Oinas, P., 503

Pertler, M., 269 Plewinsky, B., 141

Raghavan, V.R., 439 Raju, G.J.V.J., 495 Ramteke, D.S., 299 Rau, G., 351 Reichhold, A., 521 Riede, Th., 329 Romanainen, J.J., 359 Rommel, W., 269

Sadłowski, J.Z., 455 Salmi, T., 359 Saure, R., 305 Schäfer, H., 255 Schembecker, G., 317 Schlünder, E.-U., 49, 213, 219, 229, 305, 487, 561 Schlüter, S., 121, 127, 157 Schröder, K., 289

Schröder, V., 141

Schubert, H., 205 Schumpe, A., 479 Sievers, M., 115 Simmrock, K.H., 317 Skrzypek, J., 455 Song, M., 87 Spieles, G., 351 Stankiewicz, A., 367 Stapper, B., 105 Steen, H., 141 Stehlík, P., 9 Steiff, A., 87, 157 Stichlmair, J., 61

Ven, M.C.v.d., 469 Venkateswarlu, P., 495 Villora, G., 459 Vogelpohl, A., 115, 299

Subbaiah, T., 495

Wang, J., 447
Wehmeier, G., 71
Weinspach, P.-M., 157
Werther, J., 185
Westerterp, K.R., 469, 529, 543
Westhaus, U., 317
Westphal, F., 71
Wettermann, M., 213
Wild, G., 503
Wörz, O., 261

Ye, L., 385

Zagermann, S., 9 Zahradník, J., 25 Zaldívar, J.M., 529, 543, Zeilinger, M., 515 Ziółkowski, D., 41

Subject Index of Volume 34

Acetylene

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Activated carbon

activated carbon column performance studies of biologically treated landfill leachate, 299

Active carbon

a model for the prediction of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

Adsorption

activated carbon column performance studies of biologically treated landfill leachate, 299

internally circulating fluidized bed for continuous adsorption and desorption, 521

Adsorption equilibria

a model for the prediction of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

Aerocyclones

influence of the gas temperature on the separation efficiency of aerocyclones, 151

Aerosols

diffusion forces on aerosols, 255

operating results and aerosol deposition of a venturi scrubber in self-priming operation, 283

Approximate solution

maximum gas flow in circular ducts at various pressures: an approximate approach, 229

Aromatic nitrations

aromatic nitrations by mixed acid. Slow liquid-liquid reaction regime, 543

the effect of phase inversion during semibatch aromatic nitrations, 529

Asymptotic fouling resistance

influence of the ratio of free hydrogen ions on crystallization fouling, 79

Autocatalytic kinetics

a novel exit boundary condition for the axial dispersion model, 359 Axial dispersion model

a novel exit boundary condition for the axial dispersion model, 359 axial-dispersion models of fluid-fluid reactors based on the two-film theory, 447

heat transfer in two- and three-phase bubble column reactors with internals, 157

Back-mixing model

a novel exit boundary condition for the axial dispersion model, 359 Batch distillation

strategies for handling mixtures in a campaign of several multicomponent batch distillations, 391

Batch distillation campaign

strategies for handling mixtures in multicomponent batch distillations with slop recycle, 401

BCR computer code

simulation of bubble column reactors with the BCR computer

code, 127

Binary systems

liquid-phase viscosities of the binary systems carbon dioxideoleic acid, carbon dioxide-methyl myristate, and carbon dioxide-methyl palmitate at high pressures, 487

high-pressure phase equilibria and densities of the binary system carbon dioxide/methyl laurate, 561

Binary mixture wetting

thermal conductivity of packed beds consisting of porous particles wetted with binary mixtures, 339

Biological treatment

activated carbon column performance studies of biologically treated landfill leachate, 299

Bubble bed formation

gas holdup and bubble frequency in a bubble column reactor containing viscous saccharose solutions, 25

Bubble column

mass transfer into viscous pseudoplastic liquid in large-diameter bubble columns, 479

Bubble column reactors

gas holdup and bubble frequency in a bubble column reactor containing viscous saccharose solutions, 25

heat transfer in two- and three-phase bubble column reactors with internals. 157

simulation of bubble column reactors with the BCR computer code, 127

Bubble frequency

gas holdup and bubble frequency in a bubble column reactor containing viscous succharose solutions, 25

Campaign of batch distillations

strategies for handling mixtures in a campaign of several multicomponent batch distillations, 391

Characteristic curves

a model for the **prediction** of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

Chemical converters

an industrial view on the dynamic operation of chemical converters, 367

Chemical industry

purification of waste water in the chemical industry, 279

Chemical reactor design

READPERT — development, selection and design of chemical reactors, 317

Chemical reactor selection

READPERT — development, selection and design of chemical reactors, 317

Circular ducts

maximum gas flow in circular ducts at various pressures: an approximate approach, 229

Circulating fluidized beds

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185 Coarse-grained materials

pneumatic transport of coarse-grained materials, 173

y-Coefficient

fuzzy index for the estimation of product and process toxicity, 433

Column performance

activated carbon column performance studies of biologically treated landfill leachate, 299

Compressible fluids

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Computer-based consulting system

READPERT — development, selection and design of chemical reactors, 317

Conceptual design

conceptual design of the control configurations of distillation columns, 61

Condensational droplet growth

condensational droplet growth as a preconditioning technique for the separation of submicron particles from gases, 235

Contact drying

retention of volatiles in contact drying combined with membrane separation, 219

Contaminant formation

process development via a miniplant, 261

Continuous emulsification machines

developments in the continuous mechanical production of oil-inwater macro-emulsions, 205

Control configurations

conceptual design of the control configurations of distillation columns, 61

Copper deposition

mass-transfer conditions at a cathode support plate in an electrochemical cell, 495

Correlation

an experimental study on the critical heat flux (CHF) of flow boiling in a highly viscous fluid in vertical tubes, 35

Critical heat flux

an experimental study on the critical heat flux (CHF) of flow boiling in a highly viscous fluid in vertical tubes, 35

Cross flow

heat transfer in two- and three-phase bubble column reactors with internals, 157

Crystal growth

on the dynamic simulation of mass crystallization with fines removal, 323

Crystallization fouling

influence of the ratio of free hydrogen ions on crystallization fouling, 79

Deep well reactor

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121

Density

high-pressure phase equilibria and densities of the binary system carbon dioxide/methyl laurate, 561

Desorption

activated carbon column performance studies of biologically treated landfill leachate, 299

internally circulating fluidized bed for continuous adsorption and desorption, 521

Diffusion forces

diffusion forces on aerosols, 255

Disperse media

modelling of two-phase thermal conductivity, 439

Dissolved materials

purification of waste water in the chemical industry, 279

Distillation columns

conceptual design of the control configurations of distillation

columns, 61

Drobble columns

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Drobble size distribution

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Droplet coalescence

developments in the continuous mechanical production of oil-inwater macro-emulsions, 205

Droplet disruption

developments in the continuous mechanical production of oil-inwater macro-emulsions, 205

Droplet growth theory

condensational droplet growth as a preconditioning technique for the separation of submicron particles from gases, 235

Dry additives

modeling of flue gas desulphurization using dry additives, 421

Dual probe measuring device

gas holdup and bubble frequency in a bubble column reactor containing viscous saccharose solutions, 25

Dust-loaded systems

radiation heat transfer in dust-loaded systems, 105

Dynamic reactor operation

an industrial view on the dynamic operation of chemical converters, 367

Dynamic simulation

on the dynamic simulation of mass crystallization with fines removal, 323

Effect of water

kinetic study of the hydrolysis of isocyanic acid in the gas phase, 515

Electrolytic cell

mass-transfer conditions at a cathode support plate in an electrochemical cell, 495

Emulsification process

developments in the continuous mechanical production of oil-inwater macro-emulsions, 205

Energy/capital trade-off

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

Esterification

kinetics of the esterification of phthalic anhydride with 2-ethylhexanol. Part II. p-Toluenesulphonic acid as a catalyst, 455

Ethene complete oxidation

a kinetic study of the complete oxidation of ethene, propane and their mixtures on a Pd/Al₂O₃ catalyst, 469

Ethene/propane mixtures complete oxidation

a kinetic study of the complete oxidation of ethene, propane and their mixtures on a Pd/Al₂O₃ catalyst, 469

2-Ethyl-anthraquinone

identification of mass-transfer parameters in cases of simultaneous gas absorption and chemical reaction, 503

Ethylene

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Ethylhexanol

kinetics of the esterification of phthalic anhydride with 2-ethylhexanol. Part II. p-Toluenesulphonic acid as a catalyst, 455

Exit boundary condition

a novel exit boundary condition for the axial dispersion model, 359

theoretical and experimental analysis of venting-induced processes in reacting and non-reacting two-phase systems, 71

Explosion behaviour

Experimental analysis

explosion behaviour of the 'non-flammable' CFC substitute 1,1,1,2-tetrafluoroethane (R134a), 141

Film model

a film model based approach for simulation of multicomponent reactive separation, 97

Filtration kinetics

plate-type high-shear filter thickener construction and scale-up, 41 Fines removal

on the dynamic simulation of mass crystallization with fines removal, 323

First-order kinetics

a novel exit boundary condition for the axial dispersion model, 359

Fixed particle bed

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Flammability

explosion behaviour of the 'non-flammable' CFC substitute 1,1,1,2-tetrafluoroethane (R134a), 141

Flory-Huggins theory

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Flow boiling

an experimental study on the critical heat flux (CHF) of flow boiling in a highly viscous fluid in vertical tubes, 35

Flow regimes

pneumatic transport of coarse-grained materials, 173

Flue gas desulphurization

modeling of flue gas desulphurization using dry additives, 421

Fluid dynamics

fluid dynamics in an impinging-stream reactor, 115

Fluidised bed reactor

kinetic study of the hydrolysis of isocyanic acid in the gas phase, 515

Fluidized bed

internally circulating fluidized bed for continuous adsorption and desorption, 521

Fluid-mechanical model

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185

Fluid-fluid reactors

axial-dispersion models of fluid-fluid reactors based on the two-film theory, 447

Forced non-stationary conditions

an industrial view on the dynamic operation of chemical converters, 367

Free hydrogen ion ratio

influence of the ratio of free hydrogen ions on crystallization fouling, 79

Front-end

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Furnace integration

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

Fuzzy index

fuzzy index for the estimation of product and process toxicity, 433

Gas absorption

identification of mass-transfer parameters in cases of simultaneous gas absorption and chemical reaction, 503

Gases

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

Gas flow

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185 Gas holdup

gas holdup and bubble frequency in a bubble column reactor containing viscous saccharose solutions, 25

mass transfer into viscous pseudoplastic liquid in large-diameter bubble columns, 479

Gas temperature

influence of the gas temperature on the separation efficiency of aerocyclones, 151

Heat exchanger efficiency

influence of the ratio of free hydrogen ions on crystallization fouling, 79

Heat exchanger tube bundles

flow-induced vibrations in heat exchanger tube bundles, 289

Heat transfer

heat transfer in two- and three-phase bubble column reactors with internals, 157

Heterogeneous reaction systems

an industrial view on the dynamic operation of chemical converters. 367

High pressure phase equilibria

high-pressure phase equilibria and densities of the binary system carbon dioxide/methyl laurate, 561

High pressures

liquid-phase viscosities of the binary systems carbon dioxideoleic acid, carbon dioxide-methyl myristate, and carbon dioxide-methyl palmitate at high pressures, 487

Highly viscous fluid

an experimental study on the critical heat flux (CHF) of flow boiling in a highly viscous fluid in vertical tubes, 35

Holographic interferometry

mass transfer across liquid-phase boundaries, 269

Homogeneous reaction systems

an industrial view on the dynamic operation of chemical converters, 367

Hot press nip

improvement of thermal and mechanical dewatering of paper in a hot press nip simulator, 213

Hydrolysis

kinetic study of the hydrolysis of isocyanic acid in the gas phase, 515

Impinging-stream reactor

fluid dynamics in an impinging-stream reactor, 115

Incompressible fluids

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Internal circulation

internally circulating fluidized bed for continuous adsorption and desorption, 521

Internal gas recirculation rate

fluid dynamics in an impinging-stream reactor, 115

Isocyanic acid

kinetic study of the hydrolysis of isocyanic acid in the gas phase, 515

Isopiestic method

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Isopropanol/water mixtures

retention of volatiles in contact drying combined with membrane separation, 219

Kinetic

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Kinetics

kinetics of the esterification of phthalic anhydride with 2-ethylhexanol. Part II. p-Toluenesulphonic acid as a catalyst, 455 Kinetic study

a kinetic study of the complete oxidation of ethene, propane and their mixtures on a Pd/Al₂O₃ catalyst, 469

kinetic study of the hydrolysis of isocyanic acid in the gas phase, 515

Knudsen flow

maximum gas flow in circular ducts at various pressures: an approximate approach, 229

Landfill leachates

activated carbon column performance studies of biologically treated landfill leachate, 299

Liquid-liquid dispersion

the effect of phase inversion during semibatch aromatic nitrations, 529

Liquid-phase boundaries

mass transfer across liquid-phase boundaries, 269

Liquid-phase viscosities

liquid-phase viscosities of the binary systems carbon dioxideoleic acid, carbon dioxide-methyl myristate, and carbon dioxide-methyl palmitate at high pressures, 487

Longitudinal flow

heat transfer in two- and three-phase bubble column reactors with internals, 157

Marangoni effect

mass transfer across liquid-phase boundaries, 269

Mass crystallization

on the dynamic simulation of mass crystallization with fines removal, 323

Mass transfer

fluid dynamics in an impinging-stream reactor, 115

identification of mass-transfer parameters in cases of simultaneous gas absorption and chemical reaction, 503

mass transfer across liquid-phase boundaries, 269

mass-transfer conditions at a cathode support plate in an electrochemical cell, 495

mass transfer into viscous pseudoplastic liquid in large-diameter bubble columns, 479

Mathematical model

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

Maximum gas flow

maximum gas flow in circular ducts at various pressures: an approximate approach, 229

Maxwell-Stefan approach

a film model based approach for simulation of multicomponent reactive separation, 97

Mechanical apparatus

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

Mechanical dewatering

improvement of thermal and mechanical dewatering of paper in a hot press nip simulator, 213

Membrane separation

retention of volatiles in contact drying combined with membrane separation, 219

Methylacetylene

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Micropore-size distribution

a model for the prediction of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

Miniplant

process development via a miniplant, 261

Mists

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

Mixture handling

strategies for handling mixtures in multicomponent batch distillations with slop recycle, 401

Model calculations

a model for the prediction of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

influence of the gas temperature on the separation efficiency of aerocyclones, 151

radiation heat transfer in dust-loaded systems, 105

Modelling

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121

modelling of two-phase thermal conductivity, 429

Monte Carlo method

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Multicomponent reactive separation

a film model based approach for simulation of multicomponent reactive separation, 97

Multicomponent separation

strategies for handling mixtures in a campaign of several multicomponent batch distillations, 391

Newtonian flow

maximum gas flow in circular ducts at various pressures: an approximate approach, 229

Newtonian fluid flow

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Non-linear programming

strategies for handling mixtures in a campaign of several multicomponent batch distillations, 391

strategies for handling mixtures in multicomponent batch distillations with slop recycle, 401

Non-Maxwell interactions

modelling of two-phase thermal conductivity, 439

Non-reacting two-phase systems

theoretical and experimental analysis of venting-induced processes in reacting and non-reacting two-phase systems, 71

Non-steady state conditions

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121

Nucleation

on the dynamic simulation of mass crystallization with fines removal, 323

Nutsche filter

plate-type high-shear filter thickener construction and scale-up, 41

Ohm's law approach

modelling of two-phase thermal conductivity, 439

Oil-in-water emulsions

developments in the continuous mechanical production of oil-inwater macro-emulsions, 205

Organic solvents

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Organic vapours

a model for the prediction of the adsorption equilibria of arbitrary organic vapours on active carbon, 49

Oxidation

identification of mass-transfer parameters in cases of simultaneous gas absorption and chemical reaction, 503

Packed beds

thermal conductivity of packed beds consisting of porous particles wetted with binary mixtures, 339

Palladium/alumina

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Paper

improvement of thermal and mechanical dewatering of paper in a hot press nip simulator, 213

Particle emission coefficient

radiation heat transfer in dust-loaded systems, 105

Particle separation

diffusion forces on aerosols, 255

Pd/Al2O3 catalyst

a kinetic study of the complete oxidation of ethene, propane and their mixtures on a Pd/Al₂O₃ catalyst, 469

Phase inversion

the effect of phase inversion during semibatch aromatic nitrations, 529

Phthalic anhydride

kinetics of the esterification of phthalic anhydride with 2-ethylhexanol. Part II. p-Toluenesulphonic acid as a catalyst, 455

Pinch technology

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

Plate-type high-shear filter thickener

plate-type high-shear filter thickener construction and scaleup, 41

Plug flow model

a novel exit boundary condition for the axial dispersion model, 359

Pneumatic transport

pneumatic transport of coarse-grained materials, 173

Poly(vinyl acetate)

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Pore-tree model

modeling of flue gas desulphurization using dry additives, 421 Porous particles

thermal conductivity of packed beds consisting of porous particles wetted with binary mixtures, 339

Potentially explosive atmospheres

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

Preconditioning technique

condensational droplet growth as a preconditioning technique for the separation of submicron particles from gases, 235

Pressure drop calculations

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Pressure-piling effect

explosion behaviour of the 'non-flammable' CFC substitute 1,1,1,2-tetrafluoroethane (R134a), 141

Pressure profile measurements

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185

Process development

process development via a miniplant, 261

Process engineering calculations

simulation of bubble column reactors with the BCR computer code, 127

Process integration

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

Process toxicity

fuzzy index for the estimation of product and process toxicity, 433

Product toxicity

fuzzy index for the estimation of product and process toxicity,
433

Propadiene

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Propane complete oxidation

a kinetic study of the complete oxidation of ethene, propane and their mixtures on a Pd/Al₂O₃ catalyst, 469

Propylene

experimental study of the front-end selective hydrogenation of steam-cracking C₂-C₃ mixture, 459

Pseudoplastic liquid

mass transfer into viscous pseudoplastic liquid in large-diameter bubble columns, 479

Pulp washing

plate-type high-shear filter thickener construction and scale-up, 41

Purging

process development via a miniplant, 261

Radiation heat transfer

radiation heat transfer in dust-loaded systems, 105

Reacting two-phase systems

theoretical and experimental analysis of venting-induced processes in reacting and non-reacting two-phase systems, 71

READPERT

READPERT — development, selection and design of chemical reactors, 317

Recycling loops

process development via a miniplant, 261

Retention of volatiles

retention of volatiles in contact drying combined with membrane separation, 219

Scale-up

mass transfer into viscous pseudoplastic liquid in large-diameter bubble columns, 479

plate-type high-shear filter thickener construction and scale-up, 41

Selective hydrogenation

experimental study of the front-end selective hydrogenation of steam-cracking C_2 - C_3 mixture, 459

Self-priming operation

operating results and aerosol deposition of a venturi scrubber in self-priming operation, 283

Separating capacity

diffusion forces on aerosols, 255

Separation efficiency

influence of the gas temperature on the separation efficiency of aerocyclones, 151

Sewage sludge

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121

Shrinking-core model

modeling of flue gas desulphurization using dry additives, 421

a film model based approach for simulation of multicomponent reactive separation, 97

simulation of bubble column reactors with the BCR computer code, 127

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Simulator experiments

improvement of thermal and mechanical dewatering of paper in a hot press nip simulator, 213

Size distribution

on the dynamic simulation of mass crystallization with fines removal, 323

Slop cut recycling

strategies for handling mixtures in multicomponent batch distillations with slop recycle, 401

Slow liquid-liquid reactions

aromatic nitrations by mixed acid. Slow liquid-liquid reation regime, 543

Solids

coating of solids, 329

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185

purification of waste water in the chemical industry, 279

Sorption isotherms

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Spherical particles

pressure drop during the flow of a Newtonian fluid through a fixed bed of particles, 1

Splitting step method

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Stack temperature

furnace integration into processes justified by detailed calculation using a simple mathematical model, 9

State diagram

pneumatic transport of coarse-grained materials, 173

Steady-state conditions

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121

Submicron particle separation

condensational droplet growth as a preconditioning technique for the separation of submicron particles from gases, 235

Suction probe measurements

2D gas and solids flow prediction in circulating fluidized beds based on suction probe and pressure profile measurements, 185

Supersaturation

condensational droplet growth as a preconditioning technique for the separation of submicron particles from gases, 235

1,1,1,2-Tetrafluoroethane

explosion behaviour of the 'non-flammable' CFC substitute 1,1,1,2-tetrafluoroethane (R134a), 141

Theoretical analysis

theoretical and experimental analysis of venting-induced processes in reacting and non-reacting two-phase systems, 71

Theoretical treatment

thermal conductivity of packed beds consisting of porous particles wetted with binary mixtures, 339

Thermal conductivity

thermal conductivity of packed beds consisting of porous particles wetted with binary mixtures, 339

modelling of-two-phase thermal conductivity, 439

Thermal dewatering

improvement of thermal and mechanical dewatering of paper in a hot press nip simulator, 213

Thermodynamic parameters

conceptual design of the control configurations of distillation columns, 61

p-Toluene sulphonic acid catalyst

kinetics of the esterification of phthalic anhydride with 2-ethylhexanol. Part II. p-Toluenesulphonic acid as a catalyst, 455

Tube-bundle heat-exchangers

heat transfer in two- and three-phase bubble column reactors with internals, 157

Turbulence promoters

mass-transfer conditions at a cathode support plate in an electrochemical cell, 495

Two-film theory

axial-dispersion models of fluid-fluid reactors based on the two-film theory, 447

Type-testing

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

UNIFAP method

sorption isotherms for methanol, benzene and ethanol on poly(vinyl acetate) (PVAc), 305

Vaporization height

simulation of vaporization height by considering the size distribution of drobbles in drobble columns, 87

Vapours

mechanical apparatus for use in potentially explosive atmospheres formed by gases, vapours and mists, 245

Venting-induced processes

theoretical and experimental analysis of venting-induced processes in reacting and non-reacting two-phase systems, 71

Venturi scrubber

operating results and aerosol deposition of a venturi scrubber in self-priming operation, 283

Vertical tubes

an experimental study on the critical heat flux (CHF) of flow boiling in a highly viscous fluid in vertical tubes, 35

Vibration

flow-induced vibrations in heat exchanger tube bundles, 289 Viscous saccharose solutions

gas holdup and bubble frequency in a bubble column reactor containing viscous saccharose solutions, 25

Washing efficiency

operating results and aerosol deposition of a venturi scrubber in self-priming operation, 283

Waste water purification

purification of waste water in the chemical industry, 279

Wet air oxidation

modelling and simulation of a deep well reactor for the wet air oxidation of sewage sludge, 121